

CLAIMS

I CLAIM:

1. A process for making a fuel product from paper mill sludge comprising:
dewatering the paper mill sludge so as to have a solids content of greater than 7 percent by weight;
mixing an oxide-containing chemical and molasses with the dewatered paper mill sludge;
pressurizing the mixed sludge to a pressure of greater than 6 p.s.i. for a period of time of no less than fifteen seconds; and
drying the pressurized mixed sludge to no less than 60 percent solids by weight.
2. The process of Claim 1, further comprising:
dredging the paper mill sludge prior to said step of dewatering.
3. The process of Claim 1, said oxide-containing chemical being selected from the group consisting of calcium oxide and calcium hydroxide.
4. The process of Claim 1, said oxide-containing chemical being mixed in an amount of between 1 percent to 10 percent by weight of the dewatered paper mill sludge.
5. The process of Claim 4, said oxide-containing chemical being mixed in an amount of approximately 6 percent by weight of the dewatered paper mill sludge.

6. The process of Claim 1, said molasses being mixed in an amount of between .1 percent and 1 percent by weight of the dewatered paper mill sludge.

7. The process of Claim 1, said step of pressurizing being no more than 500 p.s.i.

8. The process of Claim 1, said step of drying comprising:
passing the pressurized mixed sludge to a drying field.

9. The process of Claim 1, further comprising:
grinding the dried sludge to a desired mesh size.

10. The process of Claim 9, said desired mesh size being no less than 325 mesh and no larger than one-quarter inch in diameter.

11. The process of Claim 1, said dried sludge having a heating value content of no less than 5,000 BTUs/pound.

12. The process of Claim 1, said step of pressurizing comprising:
passing the mixed sludge as a flow through a pipe, said pipe maintaining the mixed sludge at a pressure of greater than 6 p.s.i., said pipe having a length such that the flow of the mixed sludge takes longer than 15 seconds to pass through said pipe.

13. A process for making a fuel product from paper mill sludge comprising:

mixing molasses and an oxide-containing chemical with the paper mill sludge, said sludge containing fibers therein and having a solids content of greater than 7 percent by weight;

pressurizing the mixed sludge to a pressure of between 6 and 500 p.s.i. for a period of time no less than 15 seconds; and

drying the pressurized mixed sludge.

14. The process of Claim 13, said oxide-containing chemical being selected from the group consisting of calcium oxide and calcium hydroxide.

15. The process of Claim 14, said oxide-containing chemical being mixed in an amount of between 1 percent to 10 percent by weight of the dewatered paper mill sludge.

16. The process of Claim 14, said molasses being mixed in an amount of between .1 percent and 1 percent by weight of the paper mill sludge.

17. The process of Claim 13, said step of drying comprising:
drying the pressurized mixed sludge in a drying field to no less than 60 percent solids
by weight.

18. The process of Claim 13, said step of pressurizing comprising:
passing the mixed sludge as a flow through a pipe, said pipe maintaining the mixed
sludge at a pressure of between 6 and 500 p.s.i., said pipe having a length such that the flow of the
mixed sludge takes longer than 15 seconds to pass through said pipe.

19. The process of Claim 18, further comprising:
flashing the pressurized mixed sludge through an orifice in said pipe into a flash
chamber having a pressure therein of less than 6 p.s.i.

20. The process of Claim 13, further comprising:
grinding the dried sludge to a size of no less than 325 mesh and no larger than
one-quarter inch in diameter.